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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,951	04/19/2001	Antonio Jose de Araujo Porto		1254

7590

06/05/2002

Dr. Max Fogiel
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EXAMINER

NGUYEN, TRINH T

ART UNIT

PAPER NUMBER

3726

DATE MAILED: 06/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/837,951

Applicant(s)
Araujo Porto et al.

Examiner
Trinh Nguyen

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3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the Election filed 2/25/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above, claim(s) 11-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election with traverse of Group I, claims 1-10, in Paper No. 7 is acknowledged. The traversal is on the ground(s) that all claims can be examined together without requiring separate search. This is not found persuasive because 1) Applicants did not distinctly and/or specifically point out the supposed reasons of how Group I and Group II are not different and/or distinct, and 2) there will be an additional searches for an additional set of claims, thus it would be burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the reference to the drawings, each of the lettered items should appear in upper case, without underling or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

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- (a) Title of the Invention.
 - (b) Cross-Reference to Related Applications.
 - © Statement Regarding Federally Sponsored Research or Development.
 - (d) Reference to a "Sequence Listing," a table, or a computer program listing appendix submitted on compact disc (see 37 CFR 1.52(e)(5)).
 - (e) Background of the Invention.
 - 1. Field of the Invention.
 - 2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
 - (f) Brief Summary of the Invention.
 - (g) Brief Description of the Several Views of the Drawing(s).
 - (h) Detailed Description of the Invention.
 - (I) Claim or Claims (commencing on a separate sheet).
 - (j) Abstract of the Disclosure (commencing on a separate sheet).
 - (k) Drawings.
 - (l) Sequence Listing, if on paper (see 37 CFR 1.821-1.825).
3. The disclosure is objected to because of the following informalities: the disclosure of page 3 is a duplication of page 2.

Appropriate correction is required.

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Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following are examples only:

Regarding claim 1, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Noted it has been held that the functional "whereby" statement does not define any structure and accordingly can not serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

Claim 4 recites the limitation "the first axis". There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitations "the first axis" and "the second axis". There are insufficient antecedent bases for this limitation in the claim.

Claim 6 recites the limitations "the wall thickness" and "the creation of reinforcements". There are insufficient antecedent bases for this limitation in the claim.

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The above noted defects are merely representative and not intended to be a complete listing thereof. Applicant is required to make corrections to all the claims wherever appropriate in order to clarify if the prosecution is continued.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Berchem (US 4,532,686).

Berchem discloses a method of manufacturing a piston wherein the method comprises a first/preliminary forging step in which a plurality of contours are shaped/formed in a refractory steel blank and a second/subsequent forging step in which additional contours are shaped/formed. Note that during the forging process the blank is shaped along an axis that constitutes its longitudinal axis and that skirt (18) and a cavity (13) is shaped/formed.

Regarding claim 7, as best understood, noted that skirt (18) can be shaped onto the first/preliminary shaped piston (Figure 2) such that the skirt will be accommodated within the skirt's circumference (2) during the second/subsequent step (Figure 3).

Regarding claim 9, as best understood, noted that Berchem's piston can "optionally be reformed within another plane in still another manufacturing step".

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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4-6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berchem (US 4,532,686).

Regarding claim 4, as best understood, it would have been obvious to one having ordinary skill in the art at the time the invention was made to forge at approximately 90 degree to the first axis, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 5, as best understood, whether one chooses to carry out in the same forging tool or another different forging tool is a matter of design choice since there isn't any new or unexpected result obtained, and it appears that the invention would perform equally well by using the same or different forging tool as taught by the prior art. Furthermore, noted that Berchem's blank "can be optionally heated before it is inserted" into the forging tool.

Regarding to the limitation of "the wall thickness of the preliminarily shaped piston can be decreased" as claimed in claim 6, it is the Examiner's position that such aforementioned limitation is a matter of design choice wherein no significant problem is solved or unexpected

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result obtained, since it being assumed that one of ordinary skill artisan would use a best known fabricating technique best suited for a particular application, in order to realize the benefits of obtaining a highest quality level of manufacturing effectiveness.

Regarding to the specific process of forming excess material and/or recesses by punching as claimed in claim 10, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Berchem's method to include the use of a known process such as punching, since such specific process would have been an obvious expedient depending upon cost, material strength requirements, as well as time constraints of the overall manufacturing operation. Furthermore, noted that excess material is removed and/or recessed is created is an inherent occurrence during a forging process.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and are cited on form PTO-892 encloses herewith.

Official documents related to the instant application may be submitted to the Technology Center 3700 mail center by facsimile at (703) 305-3579/3580.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1148.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Nguyen whose telephone number is (703) 306-9082.

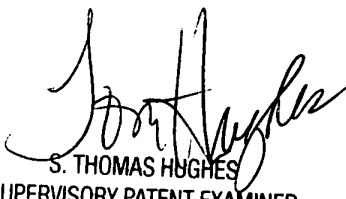
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June 3, 2002


S. THOMAS HUGHES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700